



## Relationship between ambient temperature and humidity and visits to mental health emergency departments in Quebec

**Author(s):** Vida S, Durocher M, Ouarda TB, Gosselin P  
**Year:** 2012  
**Journal:** Psychiatric Services (Washington, D.C.). 63 (11): 1150-1153

### Abstract:

**OBJECTIVE:** This study examined whether the number of emergency department visits for "mental and psychosocial problems" varies with temperature or humidity. **METHODS:** The number of visits in three geographic areas of Quebec were examined as a function of temperature and humidity by using routinely collected May-September data for 1995-2007 (NEuro Surveillance (Bulletin European Sur Les Maladies Transmissibles; European Communicable Disease Bulletin) 347,552 visits). Data for two age groups (under age 65 and age 65 and older) were examined. Incidence rate ratios for mean temperature and humidity were estimated by using Poisson regression and generalized additive models. **RESULTS:** The number of visits tended to increase with increasing mean temperature. At 22.5 degrees C (72.5 degrees F) and 25 degrees C (77.0 degrees F), the number was usually significantly higher than average. Visits increased with humidity in the younger age group. **CONCLUSIONS:** Results suggest increased use of emergency departments for mental and psychosocial problems with higher mean temperature and humidity, especially in metropolitan areas and in southern Quebec. Climate change may make this effect increasingly important.

**Source:** <http://dx.doi.org/10.1176/appi.ps.201100485>

### Resource Description

#### Exposure :

weather or climate related pathway by which climate change affects health

Meteorological Factors, Temperature

**Temperature:** Fluctuations

#### Geographic Feature:

resource focuses on specific type of geography

Urban

#### Geographic Location:

resource focuses on specific location

Non-United States

# Climate Change and Human Health Literature Portal

**Non-United States:** Non-U.S. North America

**Health Impact:** ☒

specification of health effect or disease related to climate change exposure

Mental Health/Stress, Morbidity/Mortality

**Mental Health Effect/Stress:** General Mental Effect/Stress, Mood Disorder, Schizophrenia/Delusional Disorder, Stress Disorder, Substance-Induced Disorder

**Population of Concern:** A focus of content

**Population of Concern:** ☒

populations at particular risk or vulnerability to climate change impacts

Elderly

**Other Vulnerable Population:** Mentally ill; substance abusers

**Resource Type:** ☒

format or standard characteristic of resource

Research Article

**Timescale:** ☒

time period studied

Time Scale Unspecified